

CTE and the Economy—



Finding the Upside in the Downside

BY SUSAN REESE

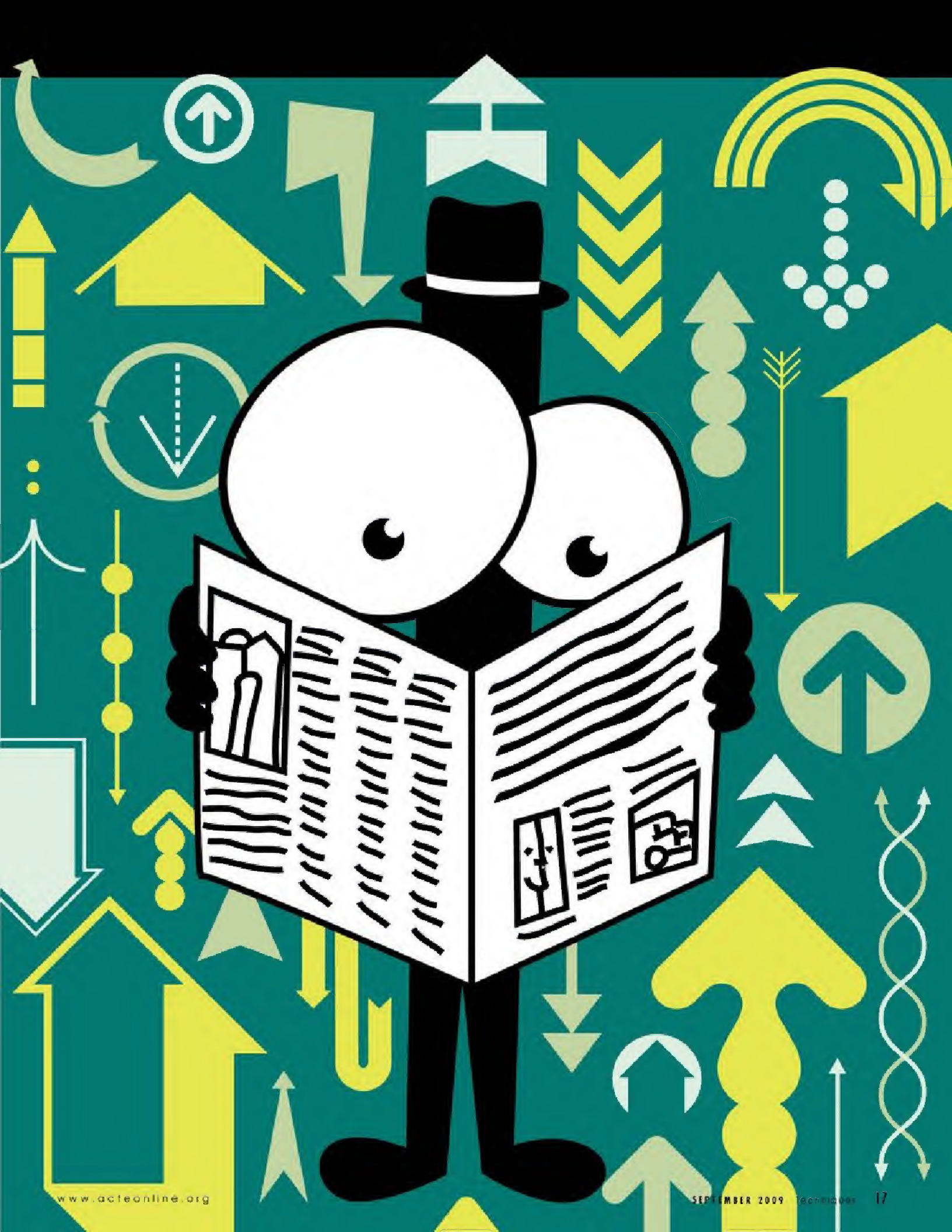
The economic news recently has been dire—from growing unemployment numbers to the slashing of state and local budgets. Schools have been forced to look at cost cutting measures—from larger classes to the elimination of some programs. A March 13 story in *The Washington Post* looked at some of the new commercial endeavors being used by cash-strapped schools—from selling advertising on their Web sites to commercials on school bus radio programs to selling sponsorships of campus activities. And yet, amid all the bad news, there is some good news to be found for career and technical education (CTE)—and some opportunities to be found among the obstacles.

For example, among the discouraging headlines appearing daily in newspapers around the country, there are also these reports:

- From the *Houston Chronicle*: Community colleges report record enrollments as people upgrade their skills in preparation for rocky economic times.
- From the *Minnesota Post-Bulletin*: With the economic slump, more students appear to be flocking to career-centered programs.
- From the *Utah Desert News*: Salt Lake Community College's enrollment increased by 4,722 students, many of whom are in career and technical training classes.
- From the *Associated Press*: Voters in Portland, Oregon, approved the biggest education bond measure in Oregon history, and the funds will be used to build more classrooms for high-demand programs such as nursing, welding and education.
- From Alabama's *Selma Times-Journal*: Wallace Community College's enrollment increased by six percent during

the fall semester, and most of the new students enrolled in the school's technical programs; in tough economic times people look to technical careers in which they can gain a trade more quickly than in a four-year degree program.

While community and technical colleges across the country are reporting growing interest and rising enrollments, high school programs may be drawing renewed interest as well. Arizona's *Payson Roundup* noted that after two years of decline, enrollment has bounded back strongly in Payson High School's career tech programs, including computer classes, automotive technology and agriculture education. In Mississippi, the *Jackson Clarion Ledger* reported that the number of high school students enrolling in CTE programs has almost doubled over the past year.





▲ Mission Valley ROP students learn how solar energy can generate electricity.



▲ A student at Homestead High School is learning the ropes in film class.



▲ An automotive student is learning his craft.

Facing the Challenge in California

According to U.S. Department of Commerce estimates released last year, California's economy is still larger than most of the countries in the world. California not only represents the largest economy in the United States, but it was the world's eighth largest economy again in 2007, with a gross domestic product of slightly more than \$1.8 trillion. It's simply too big to ignore when it comes to discussing our economy. But the news from California recently has appeared grim, with the word bankruptcy even being mentioned. Short-term projections are not rosy, but could CTE play a role in long-term prosperity?

Alyssa Lynch, the Association of California School Administrators' 2008 Career and Technical Education Administrator of the Year, is the director of the Santa Clara County Office of Education, a job she assumed this past July. Santa Clara County is so large that it has two Regional Occupational Programs (ROPs)—one in the north and one in the south. Prior to July, Lynch was director of the North County ROP (NCROP), but she says, "My new job will be much broader with CTE. It is to assist all the districts with CTE, which has several delivery systems."

An ACCTE member, Lynch is a strong advocate of CTE because she has seen how it can help students succeed. When she was the director of the NCROP, she provided these facts: "In 2006-2007, our follow-up study indicated that 93 percent of the high school graduates who completed an ROP course continued their education and/or training at the college level. These students also possess the necessary job skills and attitudes to be successful employees. Thus, NCROP provides business and industry with well-trained, productive individuals who have the ability to work their way through college. ROP courses help students find value in school."

In California, 74 Regional Occupa-

tional Centers and Programs (ROC/Ps) provide career and workforce preparation for high school students and adults, as well as preparation for advanced training and the upgrading of existing skills. According to the California Department of Education (CDE), approximately 460,000 students enroll in California's ROC/Ps each year. In addition, many ROC/Ps work in partnership with a variety of California labor organizations to provide apprenticeship-related and supplemental instruction to the more than 25,000 apprentices in California's trade careers. CDE notes, "ROC/Ps are a major resource in California's workforce development system to address the shortage of a highly qualified, skilled and diverse workforce. Preparing California's youth and adults to be successful in the workforce adds to the economic well-being of California."

Lynch also spent 11 years at another ROP—the Mission Valley Regional Occupational Program (MVROP)—and she shared news about a program there that sounds very much like what President Obama had in mind for the use of stimulus dollars for education and job creation in new green industries. According to an April 2009 press release from School Innovations and Advocacy, despite facing double-digit budget cuts, MVROP is expanding its ability to provide workforce training to a new generation of workers focused on green technologies and environment-friendly practices.

At MVROP, which serves the East San Francisco Bay area, the Alternative Energy Pathway is currently being developed—with curriculum development and teacher training to begin next year, and the first class of students to enroll in the fall of 2010. A key solar energy project related to the Alternative Energy Pathway will be the proposed installation of solar energy panels projected to cover 76 percent of the district's daily energy use. It is being developed in conjunction with Chevron Energy Solutions, and if

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approved by the Fremont Unified School District (FUSD), the project will construct shade canopies fitted with solar panels over parking lots on 14 middle and high school campuses in the FUSD.

In times such as these, when budgets are being slashed, business and industry partnerships are increasingly important, and MVROP Superintendent Charles Brown calls the proposed assistance of Chevron in staff development, project coordination, instructional materials and internships critical to the success of the new clean-technology programs.

Students in the pathway will begin with a core course in sophomore year at John F. Kennedy High School (KHS) that will count toward meeting the University of California's elective requirement. Upon completing the course, they will choose one of three concentrations: solar energy, construction technology with a green emphasis, or automotive technology with a green emphasis. Each will include junior and senior year capstone coursework as well as hands-on projects or internships.

Students in the construction technology program will begin work next year building their own solar power farm to power the construction technology and construction garage buildings, as well as a greenhouse on the adjoining KHS

and MVROP campuses. Training and partnership extends to culinary arts and agriculture education students as well, including a Sustainable Agriculture Pathway in which those studying agriculture will begin composting organic scraps from food preparation to provide nutrient-rich soil to grow the produce used by the culinary arts students.

According to Brown, starting next fall, at least a third of the current construction technology curriculum is going to change to focus on green technologies, and the automotive program will convert to an emphasis on alternative fuels and other green technologies such as biofuels, biomass and electric vehicles. Encouraging students to continue in postsecondary education is also a key element of the new program, with high school courses articulating with alternative energy and green construction programs at the community college level, specifically the solar installation program and electrical technician programs at Ohlone College in Newark. As Brown notes, "After finishing the community college program, they can write their own ticket. Demand is going to be tremendous."

If, as many believe—President Obama among them—that green-collar jobs will play a role in our nation's economic recov-

ery, then programs such as MVROP's new Alternative Energy Pathway and Sustainable Agriculture Pathway prove once again that strong CTE programs can lead the way to a prosperous future for our nation.

A Strategic Plan in Ohio

The Ohio Department of Development has formulated an economic development strategic plan with goals that include growing the income of and creating and retaining jobs for Ohioans, and expanding productivity through innovation. Ohio recognizes that improving the state's economy means improving its education as well, especially in the statewide targeted industries. These include advanced energy and environmental technologies, aerospace and aviation, agriculture and food processing, bioscience and bioproducts, corporate and professional services, distribution and logistics, controls and electronics, motor vehicle and parts manufacturing, and polymers and advanced materials.

Among the key strategies of the Ohio Department of Development's plan are attracting and retaining top talent, providing customized training solutions to Ohio's companies, and creating a demand-driven workforce and talent system. The plan also calls for an annual economic growth summit that will "bring together Ohio business, industry, community, academic and economic development leaders throughout Ohio to share ideas, strategies, tactics and best practices for Ohio's continued economic growth and development."

In February of 2009, Ohio held the 2009 Economic-Education Leadership Summit II: Engaging Partners, Changing Futures. Keith Ewald, director of the Bureau of Labor Market Information, Office of Workforce Development at the Ohio Department of Job and Family

Services, was among the presenters, and he says, "In looking at forecasted demand for workers in Ohio's economy, it comes as no surprise that the long-established axiom that education pays has and will continue to dominate the areas of employment growth. However, as we progress as a knowledge- and technology-based economy, the issue is not so much how much education one has but rather the type of technical knowledge and expertise one commands. Many of Ohio's high-prospect occupations, those with significant openings and better-than-average wages, are in the domain of career and technical education."

Ewald notes that, particularly when you get into postsecondary training, CTE has 2006–2016 employment growth projections of 9.7 percent on parity with associate degrees at 10.8 percent, baccalaureate degrees at 10.6 percent, and education above baccalaureate degrees at 13.9 percent. "These numbers compare to an expected growth rate for all occupations in Ohio of 5.0 percent," says Ewald.

For more information about the high-prospect occupations in Ohio, Ewald suggests *Techniques* readers may visit <http://ohiolmi.com/proj/projections/ohio/HighOccupationProspects.pdf>.

Also speaking at the summit was Superintendent of Public Instruction Deborah Delisle, who noted that career and technical educators have long known about the power of partnerships with business and industry and have been utilizing those partnerships for years through initiatives such as tech prep, Project Lead the Way, career and technical student organizations, and advisory councils made up of business and community members. She cited "masterful instructional strategies" designed by career and technical educators to engage students in problem solving, inquiry-based learning,

cooperative solution finding, and incorporation of 21st century skills.

Delisle cited, as an example, career and technical teacher Greg Perry, whose marketing class brought together the whole community through its Junior Achievement project, an exposition. The project on eco-friendly products resulted in an event that has been held for the past three years. Delisle also noted that Ohio is a Ford Partnership for Advanced Studies (Ford PAS) state, and in more than 60 of the state's schools, "students are being stretched to embrace 21st century skills through problem-based learning."

In addition, she praised Butler Tech, an ACTE Educational Institution Member, for its exchange partnership with the Guangxi Mechanical and Electronic Industry School in Nanning, China, in which, she said, "Butler students are not simply experiencing another culture, but are conducting research related to their chosen career fields—in the pertinent country using primary, original sources."

Noting that programs such as the one at Butler Tech are vital for students to gain essential skills to cross geographical, cultural and economic boundaries, Delisle called upon Ohio businesses to support the state's students through mentoring, internships, worksite tours, and by volunteering in the schools.

"No matter how small, if you answer one call to action, you'll be improving education and our economy," Delisle told the attendees, concluding, "Education will define Ohio's future." ■

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ACTE

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